

additionally contains a transgene that replaces any one of said deletions.

38. (amended) A replication-defective recombinant adenovirus, wherein the virus contains at least two lethal deletions, two lethal mutations, or one lethal deletion and one lethal mutation in the E1 and E4 early gene regions, wherein [the] an essential region of the E4 early gene region is [neither] deleted [n]or mutated, and wherein said recombinant adenovirus genome additionally contains a transgene that replaces any one of said deletions.

39. (amended) A packaging cell line that supports the growth of a replication defective recombinant adenovirus that carries at least two lethal deletions [a deletion] of adenovirus E1 and E4 early gene regions [rep gene region and is free of helper adenovirus], comprising a cell line that supplies the function of the E1 and E4 early regions[,] and virus-associated RNA sequences, [, and adenovirus rep gene region.]

Please add new Claims 40-50 as follows:

-- 40. (new) A DNA plasmid comprising an adenoviral E4 gene or E4 early gene region that encodes a cytotoxic protein operably linked to an inducible promoter.

41. (new) The DNA plasmid of Claim 40 wherein said inducible promoter is the promoter from the cAMP response element binding protein regulated genes.

42. (new) The DNA plasmid of Claim 41 wherein said inducible promoter is selected from the gene encoding mammalian alpha inhibin.

43. (new) The DNA plasmid of Claim 41 wherein said inducible promoter is selected from the gene encoding mouse alpha inhibin.

44. (new) The DNA plasmid of Claim 41 wherein said inducible promoter is selected from the gene encoding the tetracycline responsive promoter.

45. (new) The plasmid pIK6.1 MIP(α)-E4 designated ATCC #75879.

46. (new) A recombinant adenoviral vector, wherein said vector comprises at least two lethal deletions, two lethal mutations or one lethal deletion or one lethal mutation selected from the group consisting of E1, E2A, E4 early gene regions, viral structural genes, and optionally a deletion adenoviral vector additionally comprises a transgene that replaces any one of said deletions.

47. (new) A recombinant adenoviral vector comprising at least two lethal deletions in the E1 and E4 early gene

regions, and optionally a deletion of the E3 gene region, and a transgene that replaces any one of said deletions.

48. (new) A packaging cell line that supports the growth of a mutant adenovirus defective in replication, wherein said adenovirus comprises at least two lethal deletions, at least two lethal mutations, or at least one lethal mutation and one lethal deletion selected from the group consisting of E1, E2A, E4 early gene regions, viral structural genes, and optionally a deletion of the E3 gene region.

49. (new) A packaging cell line that supports the growth of a recombinant adenoviral vector comprising a transgene, wherein said vector comprises at least two lethal deletions, two lethal mutations or one lethal deletion and one lethal mutation selected from the group consisting of E1, E2A, E4 early gene regions, viral structural genes, and optionally a deletion of the E3 gene region.

50. (new) A packaging cell line that supports the growth of an adenoviral vector, wherein said vector comprises at least lethal two deletions selected from the group consisting of E1 and E4 early gene regions and a transgene that replaces any one of said deletions and optionally a deletion of the E3 gene region. --